

**MESTRADO**

COMUNICAÇÃO CLÍNICA

# **The Impact of the Surgical Mask on the Relationship Between Patient and Family Nurse in Primary Care**

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Patient and Family Nurse in Primary Care**

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“No man is an island entire of itself; every man is a piece of the continent, a part of the main; if a clod be washed away by the sea, Europe is the less, as well as if a promontory were, as well as any manner of thy friends or of thine own were; any man's death diminishes me, because I am involved in mankind. And therefore never send to know for whom the bell tolls; it tolls for thee. “

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## Resumo

Os cuidados de saúde primários fornecem um contexto privilegiado para o desenvolvimento de uma relação clínica entre profissionais, pacientes e/ou familiares. Durante os tratamentos, os enfermeiros podem precisar de usar máscaras cirúrgicas para prevenção do controlo da contaminação ou para minimizar os odores desagradáveis. As pesquisas indicam que o uso de máscara afeta a perceção das palavras. No entanto, também pode afetar a relação utente-enfermeiro. O objetivo deste estudo é inspecionar o efeito do uso da máscara pelos enfermeiros dos cuidados de saúde familiares na perceção do utente sobre a relação utente-enfermeiro. Este estudo envolveu a adaptação cultural das escalas do Patient Satisfaction Questionnaire III (PSQ-III) para utentes portugueses. Esta adaptação foi realizada com uma amostra de 110 pacientes adultos que foram acompanhados em duas unidades de saúde familiares a realizar tratamentos a feridas crónicas no momento do estudo. A versão culturalmente adaptada das escalas do PSQ-III foi então aplicada a 60 utentes tratados por feridas crónicas em unidades de saúde familiares, de acordo com um projeto pré-pós-teste, grupo controlo-experimental. Os utentes responderam ao PSQ-III em relação à comunicação dos enfermeiros, aos aspetos interpessoais, à qualidade técnica e à satisfação geral com a consulta de enfermagem. Uma pergunta adicional questionou os utentes e enfermeiros quanto tempo eles sentiram que a consulta durou. Os resultados indicam que a versão adaptada do PSQ-III é compreensível, nomeadamente a nível do ensino básico e entre idosos portugueses acompanhados nos cuidados de saúde primários, e revelou propriedades psicométricas aceitáveis para três escalas (Aspetos Interpessoais, Comunicação e

Satisfação Geral). Os resultados mostraram que quando os enfermeiros usaram a máscara cirúrgica obtiveram efeitos significativamente negativos na satisfação do utente em todas as dimensões avaliadas do PSQ-III (qualidade técnica, comunicação e modo interpessoal das enfermeiras) e aumentaram a duração da visita percebida para enfermeiros e pacientes. A compreensão desse impacto pode ajudar os enfermeiros a decidir como gerenciar os encontros nos quais eles podem usar a máscara cirúrgica, mantendo a qualidade do relacionamento com o utente.

#### Palavras-chave

Cuidado de enfermagem familiar, satisfação do utente , relação utente-enfermeiro, máscara cirúrgica, qualidade técnica, comunicação, duração da consulta, PSQ-III.



## **Abstract**

Primary care provides a privileged context for the development of a clinical relationship between professionals and patients or families. During treatments, nurses might need to wear surgical masks for control of infection contamination or to minimize unpleasant odors. Research indicates that wearing the mask affects perception of words. However, it might also affect the nurse-patient relation. The goal of this study is to inspect the effect of nurses wearing the mask on patient perception of the nurse-patient relation. This study involved the cultural adaptation of the Patient Satisfaction Questionnaire III's (PSQ-III) scales to Portuguese patients. This adaptation was conducted with a sample of 110 adult patients who were followed in two family health units for chronic wounds at the time of the study. The culturally adapted version of the PSQ-III scales was then applied to 60 patients treated for chronic wounds in family health units according to a pre-post-test, control-experimental group design. Patients responded to the PSQ-III regarding nurses' communication, interpersonal manner, technical quality, as well as regarding general satisfaction with the encounter. An additional question asked both patients and nurses how long they felt that the visit lasted. Results indicate that the adapted version of the PSQ-III is understandable, namely at the elementary school level and among elderly Portuguese patients followed in primary care, and revealed acceptable psychometric properties for three scales (Interpersonal Aspects, Communication, and General Satisfaction). Results showed that nurses wearing the facemask had significantly negative effects on patient

satisfaction in all the assessed dimensions of the PSQ-III (nurses' technical quality, communication and interpersonal manner) and increased the perceived visit duration for both nurses and patients. Understanding this impact can help nurses decide how to manage encounters in which they might use the surgical mask while maintaining the quality of the relationship with the patient.

#### Keywords

Family nurse care, patient satisfaction, patient-nurse relationship, surgical mask, technical quality, communication, visit duration, PSQ-III.

## **Introduction**

The use of personal protective devices is daily in the practice of health care. The situations in which these devices should be used are described, as recognized are the advantages associated with their use as a measure of infection control in the prevention of contamination of both the patient and the professional through the respiratory and oral routes (1). The use of masks by nurses is widespread, especially in the execution of dressing wounds. However, professionals' decision to use this device depends on individual criteria, such as perceiving the risk for themselves or the patient. Also is important nurse personal values and beliefs, knowledge about contamination prevention, accessibility of this device, work overload and organizational aspects (2,3). The decision of wearing the facemask is passed from generation to generation of nurses through experiential, intuitive knowledge. However, improving the quality of nursing care involves the use of a methodology, associated with a theoretical model. In the context of continuous improvement of care, research is needed to provide empirical support for the theories implemented.

Although the surgical mask presents protective advantages that justify its use, the use of the mask in primary healthcare, as in other areas of nursing care, can influence communication and relationship with the patient. Some studies indicate that the use of the mask restrict the perception of words and, consequently, the transmission of information by the professionals to the patients (4, 5, 6). The way the mask placement influences the patient-nurse relationship itself is not studied. It is possible that the jamming of the use of

the surgical mask in the communication is not only from the point of view of perception and covers the satisfaction with the received care. For example, using the mask can create a physical barrier that makes difficult perceive the words and also the (micro) facial expressions that are important for communication and for the relation, even if it does not prejudice the procedure performed by the nurse (7, 8). It can also have a symbolic function of personal distancing that can be appreciated as dutiful professional care or viewed as a limit imposed on interpersonal communication and on the relationship.

According to the Regulation of the Exercise of the Nursing Profession of the Portuguese Order of Nurses, nursing care is based on the interaction between nurse and patient, family, groups and community (9). The interpersonal relationship and the professionalism perceived by the patients are fundamental for the nurses' performance and for the individual health gains or of the family, community earnings. The objective of the interaction between the patient and the nurse is to ensure that the patient's needs are identified, and the necessary care is provided, either in the sense of changing behaviors for the acquisition of healthy lifestyles or health recovery (10). To identify these needs, nurses should be able to understand the opinions, feelings and conditions of the users. This requires communication skills and interpersonal competences, which can be conditioned by the physical barrier imposed by the mask (11,12).

In the primary care the placement of a surgical mask during a treatment, may convey an image of the most distant nurse, possibly even with disgust for the care she gives due to the occasional odor from the dressing material and / or wounds. Alternatively, the use of facemask can carry an idea of greater professionalism through the expectations of the

patients about the image that a nurse should present when execute a treatment. With the role of family nurse creation, the establishment of the nurse-patient relationship became even more relevant. Not only is the family nurse the first point of contact of the patient with the health care system, as the patient in all life processes follows for a long period of time in which clinical discharge is not assumed. This context differs from situations in which the nurse has only one (sometimes unique) contact with the patient, such as in the context of urgency, operative room, laboratory, hospitalization or exams. The quality of the relationship is important in all these nursing contexts, namely make the patient feel safe and not compromising their confidence. For example, several studies suggest that breakdown of alliances or perceptions of value judgments induce the patient to disguise or omit clinical and / or family conditions crucial to their biopsychosocial well-being (8, 10, 12). If the use of the surgical mask represents a break in the alliance or transport the idea of judgment regarding the patient or his health problem may compromise clinical practice. In the case of the family nurse, contact with the patient is continued and it is essential to maintain the quality of the relationship over time.

Some studies in primary health care show's that the longer the time spent in the same health unit with the same health professionals, the greater the satisfaction of the patient is. This gradually increases over the years, as well as tolerance for situations that other more recent users find less satisfactory (13, 14). On the other hand, in a primary health care study in Hong Kong shows that the interference of the surgical mask was negative in empathy and general patient satisfaction with the appointment, but only in those who already had an established relationship with their family doctor. This was a

randomized controlled trial conducted in a pandemic scenario in which health professionals and patients were sensitized to the need of using the facemask (15). Out of crisis situations, in the ordinary practice of health care, what is the impact of the use of masks by family nurses on patient satisfaction? This study aims to evaluate the effect that the use of surgical mask in primary care has on patient satisfaction regarding: (1) the relation with the nurse and (2) the perception of technical quality of the nurse. This study pretends to close an existing gap regarding the practice of using surgical masks by family nurses. This knowledge can be important in clinical practice, namely sensitizing nurses to the effects of wearing the mask on the patient-nurse relation (16).

Satisfaction is an individual perception linked to the fulfillment of an expectation or to the satisfaction of a need (17). Satisfaction occurs when the difference between service provided and expected is positive (17). The perception of technical quality is directly related to the relationship established. For example, there is no satisfactory clinical relationship if the patient does not trust the professional's technical knowledge and qualities (18). Some propose that professional competence includes both knowledge to solve problems and a relational function of effective communication with patients (19). Nevertheless, it is possible to distinguish technical quality from interpersonal relationship (17, 18). Technical quality refers to aspects such as theoretical knowledge, examination and procedural skills (19), and includes rigor, precision, risks and errors involved in the processes of diagnosis and treatment (20). In turn, relationship dimensions refer to communication skills (19) and include aspects such as listening, asking questions, providing information and counselling, as well as showing respect, openness and a caring

attitude toward the patient's ideas, values and concerns. The latter attitudes have been described as "humanistic qualities" and define the professional's interpersonal manner, determining the effect of communication on another person (21).

It is thus possible that the use of the surgical mask has different effects on patient satisfaction with the nurse's technical quality and on patient satisfaction with the relationship with the nurse. For example, research reported that patients' ratings of physicians' communication, but not of physicians' technical quality, was a key predictor of patient satisfaction (22). The use of the mask might decrease patient satisfaction with the relationship (if, for example, it is perceived as a physical barrier or is associated with personal distancing) and simultaneously increase satisfaction with the nurse's technical quality (if, for example, it is associated with the expectation that the nurse should wear protective mask while performing a certain function) (12).

In the following section, we present the process of translation and cultural adaptation of the Patient Satisfaction Questionnaire's (PSQ-III) selected scales. The study about the impact of the surgical mask on the patient-nurse relationship is presented afterwards.

## **Cultural Adaptation and Psychometric Characteristics of the Patient Satisfaction Questionnaire (PSQ-III) in Patients Followed in Primary Care in Portugal**

The process of cultural adaptation of the Patient Satisfaction Questionnaire (PSQ-III) was part of a study aimed at assessing satisfaction with family nurses among patients followed in primary care for chronic wounds. The study was conducted in family health units (FHU) in the North of the country and focused on visit-specific satisfaction after the encounter. Patients were invited to participate, receiving information about the study. Those who agreed to be part of the study signed an informed consent. The study received approval by the Ethics Committee of the Northern Health Regional Administration area (ARSN), which is the government organism that oversees all FHUs in the North of the country.

### **The PSQ III**

The PSQ-III assesses patient satisfaction about various domains of medical care, including aspects of the doctor-patient interaction and doctor's technical quality (23). Based on the PSQ developed by Ware et al. (24, 25), the PSQ-III comprises seven scales: General Satisfaction (6 items), Technical Quality (10 items), Interpersonal Aspects (7 items), Communication (5 items), Financial Aspects (8 items), Time Spent with the doctor (2 items), and Access/Availability/Convenience of care (12 items). Each item is responded on a 1 to 5 Likert scale (1- strongly agree; 5- strongly disagree), with higher scores indicating greater satisfaction with the aspect of care named in the respective scale. Minimum and



maximum scores for each scale are as follows: 6-30 (General Satisfaction), 10-50 (Technical Quality), 7-35 (Interpersonal Aspects), 5-25 (Communication), 8-40 (Financial Aspects), 2-10 (Time Spent with the doctor), and 5-60 (Access/Availability/Convenience of care). The PSQ-III presented good psychometric properties in its original application in the Medical Outcomes Study (MOS). Cronbach's *alpha* coefficients ranged from 0.77 for Time Spent with the doctor to 0.89 for Financial Aspects (23).

For the purposes of assessing patient satisfaction regarding relational aspects and the nurse's technical quality, five of the PSQ-III's original seven scales were translated and culturally adapted to Portuguese patients: General Satisfaction (all 6 items), Technical Quality (all 10 items), Interpersonal Aspects (all 7 items), Communication (all 5 items), and Time Spent with the doctor (all 2 items). The remaining two PSQ-III scales (Financial Aspects and Access/Availability/Convenience of care) were not translated because they refer to patient satisfaction with aspects other than the interaction with the nurse. The application of these two scales to Portugal is limited because the National Health System, in which this study was conducted, is provided for free (or with minimum expenses) and according to the patient's place of residence or workplace (whichever is closest to the patient).

The authors of the original PSQ-III added the scale on Time Spent with the doctor to this third generation of the questionnaire as an indicator of availability of resources (23) (not specifically as a measure of satisfaction with the doctor). Nevertheless, we included this scale in the cultural adaptation because it might also indicate satisfaction both about the

relationship with the nurse and about the nurse's technical quality. The translation and cultural adaptation was thus conducted on 30 of the original PSQ-III's 51 items.

The 30 items in the adapted version were presented in the same order as in the original instrument. The Likert response scale was also maintained (1- Strongly agree; 5- Strongly disagree), as were the minimum and maximum possible scores for each subscale. The adapted version contains 15 positively phrased questions and 15 negatively phrased questions. Like in the original version of the instrument, positively phrased items were reversed so that higher scores correspond to greater satisfaction. The questionnaire is self-administered (like the original PSQ-III), and patients in the current study took about 12 minutes to answer it.

### **Instrument translation and cultural adaptation**

The cultural adaptation of the PSQ-III generally followed the systematic process of translation and cultural adaptation of instruments of the World Health Organization (WHO) (26). Two native Portuguese, English-speaking experts in health care communication independently conducted the forward translation of the 30 items into Portuguese. Differences were reconciled through consensus. This consensual version was then tested through cognitive interviews with patients for assessment of word clarity and sentence comprehension, as well as content applicability, with good results. Ambiguities and redundancies were eliminated. This version was then back-translated by a native English speaker, and a group discussion followed, with comparisons conducted between the

original and the adapted versions of the instrument. Idiomatic expression of the items, punctuation and conceptual equivalence were confirmed. Terms that were idiosyncratic to physicians were replaced with nurse-specific terms (e.g., “doctor” was replaced with “nurse”; “diagnosis” was replaced with “treatment”).

A convenience sample of 20 patients followed in a primary care unit for chronic wounds participated in the cognitive interviews. Most had four (16 out of 20) or six (2 out of 20) years of school, which ensured testing of the instrument at the level of basic education. In addition, half of the participants were older than 71 years of age, warranting instrument testing among the elderly. The sample was otherwise diverse. Patients treated for chronic wounds present a variety of associated medical conditions that included diabetes, heart disease, dyslipidaemia, hypertension, and obesity. Their ages ranged from 35 to 89 (*mean* = 68.00; *SD* = 15.84), and both genders were represented (10 women and 10 men). All participants had a previous relation with their family nurses.

### **Psychometric Characteristics of the PSQ-III Cultural Adaptation**

#### **Participants and procedures**

The culturally adapted version of the selected PSQ-III ( Appendix 1) scales was applied to a sample of 110 adult patients who, at the time of this study, were followed in two FHUs for chronic wounds. Patients from a different FHU had participated in the cognitive interviews and were not included in this sample. Participants’ ages ranged from 18 to 95 years old (*mean* = 56.97; *SD* = 21.08), and about half were male (50.9%). They

had a mean of 6.39 years of school ( $SD = 3.22$ ), and just over a half were currently employed or studying (55.1%). Participants suffered from chronic conditions such as obesity, diabetes, hypertension, heart failure, dyslipidemia and circulatory diseases, and all had previous contacts with their family nurses. Patients responded to the questionnaire after the visit with their respective family nurses and were asked to rate, for each item, their satisfaction regarding that specific encounter.

### **Analyses**

Exploratory factor analyses were conducted on the data, and internal consistency was calculated for each scale through Chronbach's *alpha* coefficients. Descriptive statistics were also computed for each scale. The analyses were performed in SPSS 24.

### **Results**

Preliminary data screening confirmed the absence of univariate outliers in the data, and all items displayed correlations of at least 0.30 with several other items, suggesting reasonable factorability. The Kaiser-Meyer-Olkin measure of sample adequacy was 0.68, which is above the commonly accepted value of 0.60. Only one communality was below 0.45 (for one item from the Time Spent scale), and 25 were above 0.49. Factor analysis was thus considered suitable with all 30 items.

Results from a first exploratory factor analysis on the 30 items, with principal components extraction and oblimin rotation, produced an initial solution of nine factors in

this sample (following the Kaiser criterion of factors with eigenvalues  $> 1$ ) that accounted for 77.8% of the variance. A varimax rotation was also conducted, with equivalent results. However, a parallel analysis of the 30 items based on the Monte-Carlo simulation showed the presence of only five factors. Subsequently, a new factor analysis with principal components extraction and oblimin rotation was conducted specifying a five-factor solution that accounted for 61.2% of the variance.

Of the 30 items, 22 displayed primary loadings above 0.50. Sixteen items had cross-loadings above 0.30, but only three of these presented no primary loadings on any of the scales (one from the General Satisfaction scale and two from the Technical Quality scale). The factor loading matrix and communalities are shown in Table 1, presented according to the respective scale.

Overall, the data suggest that several aspects of the nurse's communication, interaction manner, and technical quality are indistinguishable for patients, and are also associated with patients' general satisfaction. A large number of items loaded on the first component (Communication), indicating that many PSQ-III questions from the different scales (except Time Spent) were related to each other. In particular, some items from Communication loaded on Interpersonal Manner, and vice-versa. Nevertheless, items also tended to load on the expected scales, especially for Communication and Interpersonal Manner. Half of the Technical Quality items loaded on the other scales instead (with primary loadings namely on Communication and on General Satisfaction). Unsurprisingly, the loadings of the items from the General Satisfaction scale were dispersed across the other scales, indicating which aspects were related with patients' general satisfaction. A

final component emerged (System) containing items that refer to aspects related with “health care system culture/resources”, more than with the nurse and with the patient-nurse interaction (e.g., 12- “There are things about the medical system I receive my care from that need to be improved”; 4- “Office has everything needed to provide complete medical care”). One of the two items that compose the Time Spent scale loaded on this component, whereas the other loaded on General Satisfaction.

Table 1.

Factor loadings and communalities based on a principal components analysis with oblimin rotation for 30 items from the PSQ-III, organized according to the respective scales ( $N = 110$ )

Abbreviated item content (original PSQ-III code)	Community				
	COMM	INTER	TECH	GSAT	SYS
25- Listen carefully (PSQ28)	<b>0.86</b>				0.81
3- Explain the reason for tests (PSQ24)	<b>0.70</b>				0.54
21- Ignore what I tell them (PSQ27)	-0.43	<b>0.63</b>			0.72
8- Allow to say everything (PSQ26)	0.31	-0.48			0.59
11- Use terms without explaining (PSQ25)				<b>0.68</b>	0.53
5- Should give me more respect (PSQ23)		<b>0.75</b>			0.65
18- Very friendly and courteous (PSQ22)		<b>-0.72</b>			0.56
22- Should pay attention to privacy (PSQ19)	-0.38	<b>0.60</b>			0.72
14- Make me feel foolish (PSQ21)		<b>0.52</b>	<b>0.60</b>		0.68

15- Too business-like, impersonal (PSQ17)	0.32	<b>-0.72</b>	0.63
10- Genuine interest in me (PSQ20)	<b>0.73</b>		0.70
28- Do best to keep me from worrying (PSQ18)	<b>0.53</b>	0.31	0.49
30- Competent, well-trained (PSQ13)	0.30	<b>-0.64</b>	0.66
1- Need to be more thorough (PSQ08)		<b>0.62</b>	0.46
26- Doubt about ability (PSQ14)	-0.35	0.41	0.62
4- Office has everything needed (PSQ09)		0.33 -0.36 <b>0.58</b>	0.68
20- Lack experience with my problems (PSQ12)		0.32 0.44	0.57
9- Careful to check everything (PSQ07)	<b>0.79</b>		0.74
13- Know latest medical developments (PSQ11)	<b>0.76</b>		0.63
23- Rarely give advice (PSQ16)	-0.35		0.32 0.47
7- Wonder if treatment is correct (PSQ10)	0.34	0.48 -0.47	0.65
16- Never expose me to risk (PSQ15)		<b>0.72</b>	0.54
27- Spend plenty of time (PSQ37)		<b>-0.53</b>	0.33
19- Hurry too much when treat me (PSQ38)		<b>0.77</b>	0.73
6- Care just about perfect (PSQ05)		<b>0.79</b>	0.69
12- Medical system needs improve (PSQ04)		<b>0.71</b>	0.67
17- Some things could be better (PSQ02)	-0.39	0.39	0.45
2- Very satisfied with care (PSQ01)	0.30	<b>-0.65</b>	0.70
24- Medical care is excellent (PSQ03)	0.37	-0.48	0.58
29- Dissatisfied with some things (PSQ06)	-0.37	<b>0.55</b>	0.56

*Note.* COMM – Communication, INTER – Interpersonal Manner, TECH – Technical Quality, GSAT – General Satisfaction, SYS – Health care system culture/resources. Factor loadings < 0.3 are suppressed.

Cronbach's *alpha* coefficients were modest for three scales (Table 2): Communication ( $\alpha = 0.64$ ), Interpersonal Aspects ( $\alpha = 0.77$ ) and General Satisfaction ( $\alpha = 0.57$ ). They were unacceptable for Technical Quality ( $\alpha = 0.44$ ) and the Time Spent scale ( $\alpha = 0.12$ ).

Item inspection showed that Cronbach's *alpha* coefficients improved in three scales with the elimination of four items. Three of these four items had strong loadings on "SYS" in the exploratory factor analysis, indicating satisfaction about the health care system, rather than about the interaction with the nurse. Thus, for the General Satisfaction scale, deleting item 12- "There are things about the medical system I receive my care from that need to be improved" increased this scale's *alpha* coefficient to 0.60. Similarly, for the Technical Quality scale, deleting item 4- "Office has everything needed to provide complete medical care" increased this scale's *alpha* coefficient to 0.54. For the Communication scale, deleting item 11- "Use terms without explaining" increased the scale's *alpha* coefficient to 0.80. In addition, deleting item 7- "Wonder if the treatment is correct" also increased the Technical Quality scale's *alpha* to 0.54. The Interpersonal Aspects scale did not register any increase in *alpha* values with elimination of items. The Time Spent scale is composed of only two items, and Cronbach's *alpha* coefficients for eliminated items were not computed, though the correlation between the two items was close to zero.

Descriptive statistics for each scale are presented in Table 2. Mean scores lied well above the mid-point of each scale.



Table 2.

Cultural adaptation of the PSQ-III scales: Means, standard deviations, reliability and homogeneity estimates ( $N = 110$  patients)

	Number of items	Reliability (Cronbach's $\alpha$ )	Homogeneity (mean inter-item correlation)	Possible scores		<i>Mean</i>	<i>SD</i>
				Low	High		
Communication	5	0.64	0.36	5	25	21.07	2.41
Interpersonal Aspects	7	0.77	0.34	7	35	29.91	3.65
Technical Quality	10	0.44	0.15	10	50	40.44	3.56
General Satisfaction	6	0.57	0.21	6	30	23.63	3.06
Time Spent with nurse	2	0.11	0.06	2	10	7.00	1.68

*Note:* SD - Standard deviation.

## Discussion

Results from the cultural adaptation of the PSQ-III selected scales indicate that the adapted version is understandable, namely at the elementary school level and among elderly Portuguese patients followed in primary care. Our results suggest that at least three of the five PSQ-III culturally adapted scales can be used with Portuguese patients to assess visit-specific satisfaction, namely Communication, Interpersonal Aspects, and General Satisfaction. The adapted version revealed acceptable, even if modest, psychometric properties for these three scales. However, reliability estimates were low for Technical Quality and especially for the Time Spent scale. Item-by-item analyses are thus

recommended in Portuguese applications of the instrument before summary scores are presented. Particular attention should be paid to items pertaining to satisfaction about the health care system *versus* about the patient-professional interaction. Depending on the study's goals, such items might confound results.

The PSQ-III authors added the Time Spent scale to the questionnaire to tap into resources that might be affected by system pressures (23). The current study confirmed that one of the two items in the Time Spent scale loaded onto "Health care system culture/resources", though the other loaded on General Satisfaction. This discrepancy helps explain the low homogeneity estimate found for this scale, which was the most heterogeneous scale in the current study.

Other cultural adaptations of the PSQ-III have reported similar results. For example, in a study using five PSQ-III scales in the Netherlands (where Access to Care was used, instead of General Satisfaction), the authors also found that the items loaded on the first factor. They provided *alpha* coefficients for three scales, recombining the items in a manner that differs from the original PSQ-III scales (27). Patients' mean scores lying above the mid-point of each scale is also consistent with the findings in the original MOS and in other PSQ-III cultural adaptation studies. (23, 27, 28). Participants in the current study attributed somewhat higher mean scores to the appointment with the nurse for each scale than participants in the other studies did. Only Communication and the Time Spent scale registered similarly high satisfaction scores in one other cultural adaptation (28). This might have to do with the fact that, in the current study, patients assessed a single visit.

Unlike the current work, the other studies used the PSQ-III to assess satisfaction about the medical care received after a period of contacts, and not concerning one particular visit (23, 27, 28). The PSQ-III was designed to assess periodic satisfaction, and its authors used other instruments to assess visit-specific satisfaction in the original Medical Outcomes Study (MOS) (23). However, these other instruments do not include the diversity of aspects that the PSQ-III contains and that were the reason for using it in the current study.

The PSQ-III performed better in the original MOS than in the current study regarding reliability and homogeneity estimates. In addition to the difference between periodic- and visit-specific assessment, several factors might explain the relative discrepancies encountered between the two studies. These are the fact that the PSQ-III includes items that were not used in the current study (corresponding to two scales that were not considered here), this study's much smaller sample, differences in context (primary care *versus* hospital) and in professionals being assessed (nurses *versus* physicians). However, the similarities observed between the current study and the other cultural adaptation of the PSQ-III suggest that cultural specificities might be at play here. Like the MOS, these other cultural adaptations were conducted in the hospital setting and included large samples of patients who assessed periodic satisfaction with their doctors (27, 28). Additionally, all the studies (including the current one) were conducted with patients suffering from chronic conditions. Future research using the Portuguese adapted PSQ-III scales with larger and more diverse samples can cast further light into these results. Studies assessing periodic satisfaction with Portuguese patients are also warranted, for comparison with single-visit applications of the PSQ-III.

## **Conclusion**

The Portuguese version of the PSQ-III can now be used for assessment and research purposes. Its psychometric properties allows the assessment of patient satisfaction with several aspects of health care encounters in Portugal.

# **The Impact of the Surgical Mask on the Relationship Between Patient and Family Nurse in Primary Care**

## **Methods**

This study was carried out in two family health units (FHU) belonging to the country's Northern Health Regional Administration area (ARSN) in 2018. Patients in the two FHUs and their respective family nurses were invited to participate, receiving information about the study. Those who agreed to participate signed an informed consent (Appendix 2). The study was approved by the ARSN Ethics Committee (Appendix 3).

## **Sample**

The sample is composed of patients with chronic wounds who, due to this pathology, needed at least two consecutive treatments at the time of the study. To participate, they had to be 18 years of age or older, capable of reading and writing, possessing autopsychic and alopsychic orientation, and maintaining a previous relationship with their family nurses of at least 18 months. All patients were in identical conditions regarding previous contacts with the mask because the professionals in these two FHUs do not use surgical masks.

Of the 117 patients who were initially contacted at the time of this study, those who completed the questionnaire in its entirety in the two consecutive appointments with the nurses were included. The final sample consisted of 60 patients and their respective 12 nurses. Patients' ages ranged from 18 to 89 years old, and education levels ranged from the fourth grade to college degrees. Just over half were men, most were employed or studying, and they had been with their family nurses from 18 months to more than six years. Patients' characteristics are presented in Table 1. Nurses had a mean of 17.66 years ( $SD = 8.79$ ) of professional experience and had been working as family nurses for an average of 6.58 years ( $SD = 2.42$ ). Their mean age was 43.67 years old ( $SD = 7.22$ ) and all but one were women.

## **Instrument**

The Patient Satisfaction Questionnaire (PSQ-III) is particularly well-suited for the assessment of patients' perspectives on various domains of medical care, including aspects of the professional's technical quality and relational aspects. The PSQ-III measures actual satisfaction with one's own care (rather than general beliefs about medical care overall) (23). In the current study, four PSQ-III scales were used to assess the effects of wearing the surgical mask on patient satisfaction with the nurse's technical quality and with the patient-nurse relation: Interpersonal Aspects, Communication, Technical Quality, and General Satisfaction. The Interpersonal Aspects and Communication scales address the relational component of the encounter. The General Satisfaction scale was included for a sense of patients' overall satisfaction with the visit.

Each item is responded on a five-point Likert scale (1- strongly agree; 5- strongly disagree), with higher scores indicating greater satisfaction. In the current study, Technical Quality includes only nine of the scale's original 10 items. Item 4 ("Office has everything needed to provide complete medical care") was excluded because in the Portuguese cultural adaptation of the instrument, it related with health care system resources, rather than with the interaction with the nurse (23). Minimum and maximum scores for each scale are as follows: 6-30 (General Satisfaction), 9-45 (Technical Quality), 7-35 (Interpersonal Aspects), and 5-25 (Communication). The PSQ-III scales presented good internal consistency in the original Medical Outcomes Study (MOS) (24, 25), and the Portuguese cultural adaptation showed acceptable psychometric properties. Cronbach's *alpha* coefficients ranged from 0.54 for the nine-item Technical Quality scale to 0.77 for the Interpersonal Aspects scale in the Portuguese adaptation.

In addition to the PSQ-III scales, patients and nurses were asked how long they felt that the appointment lasted. This question was asked because research indicates that physical aspects influence the perception of time spent in a clinical encounter and can affect patient perception of communication (14). Responses to this last question were given for the following possible intervals: 5-10 minutes, 10-15 minutes, 15-20 minutes, and over 20 minutes. The effective time of each patient-nurse visit was recorded through the software register Sclinico (a computer system developed by the Portuguese Ministry of Health for the National Health Service institutions).

Participants also answered socio-demographic questions on age, gender, education, work status and number of co-habitants. Additionally, information on clinical variables was

obtained on the number of years that the nurse has been the patient's family nurse, the number of times that patient and nurse met, and the condition for which the patient was being treated (type of wound). The latter was collected from the patients' medical records.

## **Procedures**

This study was conducted in two consecutive appointments between the same patient-nurse dyad (each patient received two medical treatments in the same week). The visits had the approximate duration of 13 minutes (*mean* = 13.22; *SD* = 3.06). The 60 patients were randomly allocated to the control group (*n* = 30) and to the experimental group (*n* = 30). In the first visit (T<sub>1</sub>), all patients received the respective treatment from their family nurses. In the second visit (T<sub>2</sub>), all patients received the appropriate treatment again, but the nurses in the experimental group put on a surgical mask. In a previous training session for the nurses (namely to ensure that the usual treatment procedures were maintained in all the appointments and regardless of the masks), the nurses were instructed to explain the reasons for using the mask if the patient asked. However, such a situation did not occur.

After each appointment, patients completed the questionnaire in a separate room where comfort and privacy conditions were ensured. Consistent with the goals of the current study, patients were asked to rate their satisfaction regarding that particular visit with the family nurse. Nurses (and patients) responded to the question on how long they felt that the visit lasted also after each appointment.



Table 3. Sample characteristics

	Total ( <i>n</i> = 60)	Control group ( <i>n</i> = 30)	Experimental group ( <i>n</i> = 30)
<b>Age (years) - mean (SD)</b>	55.10 (18.74)	52.57 (19.15)	57.63 (18.30)
<b>Education (years) - mean (SD)</b>	6.65 (3.38)	7.17 (3.70)	6.13 (3.00)
<b>Sex - <i>n</i> (%)</b>			
Men	32 (53.3)	15 (50.0)	17 (56.7)
Women	28 (46.7)	15 (50.0)	13 (43.3)
<b>No. of cohabitants - mean (SD)</b>	2.77 (1.18)	2.67 (1.12)	2.87 (1.25)
<b>Work status - <i>n</i> (%)</b>			
Employed/Studding	37 (61.7)	19 (63.3)	18 (60.0)
Unemployed/Homemaker/Retired	23 (38.3)	11 (36.7)	12 (40.0)
<b>Type of wound - <i>n</i> (%)</b>			
Surgical wound	17 (28.3)	10 (33.3)	7 (23.3)
Venous ulcer	21 (35.0)	10 (33.3)	11 (36.7)
Arterial ulcer	7 (11.7)	4 (13.3)	3 (10.0)
Ulcer of unknown etiology	10 (16.7)	5 (16.7)	5 (16.7)
Diabetic wound	5 (8.3)	1 (3.3)	4 (13.3)
<b>No. of visits with this nurse - <i>n</i> (%)</b>			
0-10	16 (26.7)	10 (33.3)	6 (20.0)
10-20	15 (25.0)	8 (26.7)	7 (23.3)
20-30	14 (23.3)	6 (20.0)	8 (26.7)
30-40	6 (10.0)	2 (6.7)	4 (13.3)
> 40	9 (15.0)	4 (13.3)	5 (16.7)
<b>Time with this nurse (years) - <i>n</i> (%)</b>			
2 years	12 (20.0)	7 (23.3)	5 (16.7)

2-4 years	19 (31.7)	12 (40.0)	7 (23.3)
4-6 years	10 (16.7)	8 (26.7)	2 (6.7)
> 6 years	19 (31.7)	3 (10.0)	16 (53.3)

*Note.* *SD* – Standard deviation.

### Analyses

Statistical analyses were conducted in SPSS 24. Exposure was assessed through the differences in questionnaire responses between T<sub>1</sub> and T<sub>2</sub>, and between control and experimental groups (Time\*Group interaction effects). General Linear Model (GLM) Repeated Measures procedures were used to assess the effects of wearing the surgical mask on patients' satisfaction with the nurses' Technical Quality (9 items), Interpersonal Manner (7 items), Communication (5 items), General Satisfaction (6 items), and patients', as well as nurses' sensation of visit duration. Socio-demographic and clinical variables were included as covariates, and Bonferroni post hoc tests were conducted to correct for multiple comparisons.

In the analysis of socio-demographic and clinical covariates, patient education was not used because it showed a very high correlation with patient age ( $r = 0.731$ ;  $p = 0.000$ ). Number of times that the patient and the nurse had met before was used, instead of how long this nurse is the patient's family nurse, because it provides a more realistic picture of actual patient-nurse interactions (the nurse might have been the family nurse of a patient for a long time without having seen the patient before).

## Results

Cronbach's *alpha* coefficients for each scale at T<sub>1</sub> (baseline data) in this sample were 0.75 (Interpersonal Aspects), 0.66 (Communication), 0.54 (Technical Quality scale), and 0.65 (General Satisfaction). The 60 patients who participated in the study were generally very satisfied with their family nurses regarding the PSQ-III aspects. Satisfaction levels were high in both the control and the experimental groups at T<sub>1</sub> (Table 4). GLM Repeated Measure procedures showed no significant differences between the two groups regarding the four PSQ-III scales at T<sub>1</sub> (group main effects were statistically non-significant, suggesting that the group alone did not account for differences in the PSQ-III aspects, and Bonferroni post hoc tests confirmed the non-significant differences between the two groups at T<sub>1</sub>). At T<sub>2</sub>, mean satisfaction levels dropped in the experimental group for all PSQ-III scales but remained equivalent to T<sub>1</sub> in the control group.

Table 4. Patient satisfaction in the PSQ-III scales: Means (standard deviations).

	Control Group ( <i>n</i> = 30)		Experimental Group ( <i>n</i> = 30)		Total ( <i>N</i> = 60)
	T <sub>1</sub>	T <sub>2</sub>	T <sub>1</sub>	T <sub>2</sub>	T <sub>1</sub> (baseline)
General Satisfaction	24.40 (3.61)	24.37 (3.69)	23.90 (2.28)	22.20 (3.38)	24.15 (3.01)
Interpersonal Aspects	30.27 (3.18)	30.40 (3.09)	31.13 (2.93)	29.37 (3.83)	30.70 (3.07)

Communication	21.10 (2.63)	21.13 (2.65)	21.63 (2.16)	19.90 (2.58)	21.37 (2.40)
Technical Quality	36.80 (3.74)	36.73 (3.86)	37.50 (3.32)	34.50 (4.07)	40.88 (3.51)

*Note.* Minimum and maximum possible values for General Satisfaction – 6-30, Interpersonal Aspects – 7-35, Communication – 5-25, and Technical Quality – 9-45.

A significant Time\*Group interaction effect was observed for the four PSQ-III scales, indicating a highly significant effect of nurses wearing the surgical mask on patient's satisfaction (General satisfaction,  $F(1) = 18.695$ ;  $p = 0.000$ ;  $\eta^2 = 0.244$ ;  $OP = 0.989$ , Technical quality,  $F(1) = 25.132$ ;  $p = 0.000$ ;  $\eta^2 = 0.302$ ;  $OP = 0.999$ , Interpersonal aspects,  $F(1) = 15.484$ ;  $p = 0.000$ ;  $\eta^2 = 0.211$ ;  $OP = 0.972$ , and Communication,  $F(1) = 22.106$ ;  $p = 0.000$ ;  $\eta^2 = 0.276$ ;  $OP = 0.996$ ).

Bonferroni post hoc tests revealed statistically non-significant differences between T<sub>1</sub> and T<sub>2</sub> for each scale in the control group. However, the decrease from T<sub>1</sub> to T<sub>2</sub> in the experimental group was highly significant for all four scales (General Satisfaction,  $F(1, 58) = 38.901$ ;  $p = 0.000$ ;  $\eta^2 = 0.401$ ;  $OP = 1.000$ , Technical quality,  $F(1, 58) = 52.574$ ;  $p = 0.000$ ;  $\eta^2 = 0.475$ ;  $OP = 1.000$ , Interpersonal Aspects,  $F(1, 58) = 28.774$ ;  $p = 0.000$ ;  $\eta^2 = 0.316$ ;  $OP = 0.999$ , and Communication,  $F(1, 58) = 42.560$ ;  $p = 0.000$ ;  $\eta^2 = 0.423$ ;  $OP = 1.000$ ). At T<sub>2</sub>, differences between control and experimental groups were significant for patients' General Satisfaction ( $F(1, 58) = 5.627$ ;  $p = 0.021$ ;  $\eta^2 = 0.088$ ;  $OP = 0.645$ ) and satisfaction about nurses' Technical Quality ( $F(1, 58) = 4.751$ ;  $p = 0.033$ ;  $\eta^2 = 0.076$ ;  $OP =$

0.573). They were somewhat above the level of statistical significance for Communication ( $F(1, 58) = 3.340$ ;  $p = 0.073$ ;  $\eta^2 = 0.054$ ;  $OP = 0.436$ ), and well above the level of statistical significance for Interpersonal Aspects ( $F(1, 58) = 1.323$ ;  $p = 0.255$ ;  $\eta^2 = 0.022$ ;  $OP = 0.205$ ).

Inspection of possible influences of socio-demographic and clinical variables on changes associated with using the surgical mask revealed statistically non-significant effects of patients' age, sex, work status and number of co-habitants on the change from T<sub>1</sub> to T<sub>2</sub> in all four PSQ-III scales. The type of wound and the number of times that the patient met with the nurse before also did not affect the changes from T<sub>1</sub> to T<sub>2</sub> on all PSQ-III aspects.

Regarding the sensation of how long the visit lasted, few patients reported that the visit lasted more than 15 minutes at T<sub>1</sub> (5 patients in the control group, and 8 patients in the experimental group). At T<sub>2</sub>, this number remained similar in the control group (6 patients), but more than doubled in the experimental group (17 out of 30 patients). Whereas patients' sensation of time agreed with effective visit duration in most cases at T<sub>1</sub> (22 cases in the control group and another 22 in the experimental group), this number remained the same in the control group at T<sub>2</sub> but decreased to nine cases in the experimental group. Twenty patients in the experimental group had the sensation that the visit lasted longer at T<sub>2</sub> than it effectively did (against five who had the sensation that the visit lasted longer than it effectively did at T<sub>1</sub>). Group main effects were statistically non-significant, indicating no effects of the group, *per se*, on sense of visit duration. However, the change from T<sub>1</sub> to T<sub>2</sub> was highly significant ( $F(1) = 33.126$ ;  $p = 0.000$ ;  $\eta^2 = 0.364$ ;  $OP = 1.000$ ), and so was the

Time\*Group interaction ( $F(1) = 25.791$ ;  $p = 0.000$ ;  $\eta^2 = 0.308$ ;  $OP = 0.999$ ). This indicates that nurses wearing the masks produced a sense of longer visit duration among patients.

Similar results were found for the nurses. At  $T_1$ , few nurses reported that the visit lasted longer than 15 minutes (in 9 cases out of 30 in the control group, and in 8 cases out of 30 in the experimental group). At  $T_2$  this number remained similar in the control group (7 cases out of 30) but more than doubled in the experimental group (17 cases out of 30). Like with patients, nurses' sensation of time agreed with actual visit duration in most cases at  $T_1$  (20 cases in the control group and 24 cases in the experimental group). This number remained the same in the control group at  $T_2$  but decreased to 11 cases in the experimental group. Nineteen nurses in the experimental group had the sensation that the visit lasted longer at  $T_2$  than it effectively did (against four who had the sensation that the visit lasted longer than it effectively did at  $T_1$ ). Group main effects were again statistically non-significant, but the changes from  $T_1$  to  $T_2$  were significant ( $F(1) = 7.228$ ;  $p = 0.009$ ;  $\eta^2 = 0.111$ ;  $OP = 0.753$ ), and the Time\*Group interaction was highly significant ( $F(1) = 15.080$ ;  $p = 0.000$ ;  $\eta^2 = 0.206$ ;  $OP = 0.968$ ). This shows an effect of wearing the mask on nurses' sense of stretched visit time.

Effects of patients' socio-demographic characteristics on the change from  $T_1$  to  $T_2$  in the sensation of visit duration were all non-significant for both patients and nurses. Effects of clinical variables were also non-significant for patients. For nurses, however, both clinical variables (type of wound and number of times that the nurse met with the patient) had a significant impact on the change from  $T_1$  to  $T_2$  in nurses' sensation of how long the visit lasted. Specifically, nurses wearing their masks felt that the visit became

longer especially for patients with varicose ulcers and complications of surgical wounds ( $F(1) = 11.495$ ;  $p = 0.001$ ;  $\eta^2 = 0.170$ ;  $OP = 0.915$ ). They additionally sensed that the visit became longer for those patients whom they met more frequently,  $F(1) = 4.308$ ;  $p = 0.043$ ;  $\eta^2 = 0.071$ ;  $OP = 0.532$ . The type of wound was unrelated with the number of times that the nurse had been with the patient.

## **Discussion**

Research has shown that the use of the surgical mask influences communication between patients and health professionals (5,6,7). The aim of this study was to evaluate the extent to which wearing the mask in primary health care has an impact on an already existing relationship between nurse and patient. Our results indicate that wearing the surgical mask affects patients' satisfaction with the nurses' interpersonal manner, communication, and technical quality, also affecting patients' general satisfaction with the encounter. In all these cases, the impact of the mask was negative. In addition, both patients and nurses had the sensation that the appointment took significantly longer when the nurse wore the mask than when the nurse did not wear the mask. This study is in line with previous research showing a negative effect of wearing the surgical mask on satisfaction among patients who already had a relationship with their health professionals (15).

For nurses, the observed significant effects of the clinical variables on perception of visit duration suggests greater discomfort, during mask-wearing treatments, with particular types of wounds (or wound-suffering patients) and with patients whom nurses had met

more often. The results for patients did not match these findings. For patients, no socio-demographic or clinical variables influenced the effect of the mask on either satisfaction or sensation of visit duration.

Despite the decrease in patient satisfaction when nurses put on their facemasks, satisfaction levels were still high. It is possible that the prolonged contacts with the family nurses have attenuated the impact of the mask on patients' perceptions of the relationship, namely by increasing their tolerance to this situation (13, 16). The impact might be stronger when a previous nurse-patient relationship does not exist.

This study focused on a novel figure in primary care in Portugal, the family nurse, which started to exist in 2008 but has only been officially recognized more recently, in 2014. Our results suggest that the family nurse constitutes an excellent vehicle to the establishment of satisfactory clinical relationships, with value to the patients. Future studies can include family nurses and other nurses in primary care for comparison. More studies are also necessary to investigate the effects of using the mask in other nursing settings, namely where prolonged contacts between nurse and patient do not exist. Research focusing on the role of habituation to the use of the mask, and on the effects of possible explanations offered to patients about the reasons for wearing the mask are also important. Nurses may need to use the surgical mask in their daily practice, and research is necessary to investigate ways of mitigating the negative effects that wearing it have on patients. This study showed that not only were aspects of the relationship negatively affected, but satisfaction with the nurse's technical quality also did not increase when they put on their surgical masks, quite the contrary.



## **Conclusion**

When a previous relationship with the patient exists, nurses wearing the surgical mask negatively affects patient satisfaction with the patient-nurse relation and with the nurses' technical quality in primary care in Portugal. The impact of the mask occurs not only for the patient but also for the nurse's sensation of visit duration.

## **Implications for practitioners**

This study provides a scientific basis for the use of the mask beyond individual criteria and beyond the experiential and intuitive logic that often underlies decisions to wear it. Awareness to the effects of the mask on the patient-nurse relation can help nurses decide how to manage encounters in which they might use this protective device without jeopardizing the quality of the relationship.

## **Declaration of Conflicting Interests**

No conflict of interest has been declared by the authors.

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Manuscript entitled "The impact of the surgical mask on the patient-nurse relation in primary care," submitted to approval to the Journal of Family Nursing. Manuscript entitled "Cultural Adaptation of the Patient Satisfaction Questionnaire (PSQ-III) in Primary Care in Portugal", submitted to approval to the Western Journal Nursing Research.

## **Appendix 1**

Patient Satisfaction Questionnaire ( PSQ III) – Traduced and adapted to portuguese

## Questionário de Satisfação do Utente (PSQ-III)

(Adaptado para a população portuguesa, sem duas componentes: Financeira e Acessibilidade)

As próximas questões dizem respeito ao que sentiu relativamente aos cuidados de enfermagem que recebeu.

Por favor, leia com atenção cada uma das perguntas, pensando nos cuidados de enfermagem que recebeu agora. Estamos interessados no que sentiu, bom e mau, sobre os cuidados que recebeu.

Este questionário é anónimo.

Quão fortemente CONCORDA ou DISCORDA de cada uma das seguintes afirmações?

(Responda colocando um círculo na resposta apropriada)

	C oncordo muito	C oncordo	N ão tenho a certeza	D iscordo	D iscordo muito
1. O(a) enfermeiro(a) precisa de ser mais minucioso(a) no meu exame e tratamento.	1	2	3	4	5
2. Estou muito satisfeito(a) com os cuidados de enfermagem que recebo.	1	2	3	4	5
3. O(a) enfermeiro(a) foi bom(a) a explicar a razão para os tratamentos feitos.	1	2	3	4	5
4. Penso que o consultório do(a) meu(a) enfermeiro(a) tem tudo o que é necessário para fornecer cuidados de saúde completos.	1	2	3	4	5
5. O(a) enfermeiro(a) que me tratou deveria tratar-me com mais respeito.	1	2	3	4	5
6. Os cuidados de saúde que recebi são quase perfeitos.	1	2	3	4	5
7. Às vezes o(a) enfermeiro(a) faz-me pensar se o meu tratamento está correto.	1	2	3	4	5
8. Durante os meus tratamentos	1	2	3	4	5

é-me permitido dizer tudo que eu penso ser importante.					
9. Quando procuro cuidados de saúde, o(a) enfermeiro(a) é cuidadoso(a) a verificar tudo quando me trata ou me examina.	1	2	3	4	5
10. O(a) enfermeiro(a) que me tratou tem interesse verdadeiro em mim, enquanto pessoa.	1	2	3	4	5
11. Por vezes o(a) enfermeiro(a) usa termos médicos sem me explicar o que significam.	1	2	3	4	5
12. Existem coisas nesta unidade de saúde que precisam de ser melhoradas.	1	2	3	4	5
13. O(a) enfermeiro(a) que me trata conhece os últimos desenvolvimentos médicos.	1	2	3	4	5
14. Por vezes o(a) enfermeiro(a) faz-me sentir idiota.	1	2	3	4	5
15. O(a) enfermeiro(a) agiu para comigo de forma demasiado mecânica ou impessoal.	1	2	3	4	5
16. O(a) enfermeiro(a) nunca me expôs a um risco desnecessário.	1	2	3	4	5
17. Existem coisas relativamente ao tratamento de enfermagem que eu recebi que podia ser melhor.	1	2	3	4	5
18. O(a) enfermeiro(a) trata-me de uma forma muito simpática e amável.	1	2	3	4	5
19. O(a) enfermeiro(a) que me presta cuidados de saúde às vezes apressa-se demasiado quando me trata.	1	2	3	4	5
20. O(a) enfermeiro(a) que me viu tem falta de experiência com o meu problema.	1	2	3	4	5
21. O(a) enfermeiro(a) por vezes ignora o que lhe digo.	1	2	3	4	5
22. Quando eu recebo o meu tratamento, o(a) enfermeiro(a) devia ter	1	2	3	4	5

mais cuidado com a minha privacidade.					
23. O(a) enfermeiro(a) raramente me dá conselhos para melhorar da minha doença ou manter-me saudável.	1	2	3	4	5
24. Globalmente, o tratamento que recebi foi excelente.	1	2	3	4	5
25. O(a) enfermeiro(a) ouviu atentamente o que eu tinha para dizer.	1	2	3	4	5
26. Tenho algumas dúvidas sobre a competência do(a) enfermeiro(a) que me trata.	1	2	3	4	5
27. O(a) enfermeiro(a) gastou bastante tempo comigo.	1	2	3	4	5
28. O(a) enfermeiro(a) deu o seu melhor para evitar que eu me preocupe.	1	2	3	4	5
29. Sinto-me insatisfeito(a) com algumas coisas relativamente aos tratamentos que recebi.	1	2	3	4	5
30. O(a) meu(a) enfermeiro(a) é competente e experiente.	1	2	3	4	5

Data \_\_\_\_\_

Idade:

Género: masculino \_\_\_\_\_ feminino \_\_\_\_\_

A sua profissão/ocupação: \_\_\_\_\_

O seu nível de escolaridade: quantos anos frequentou a escola? \_\_\_\_\_ anos

O agregado familiar: Com quem vive? \_\_\_\_\_

Hays R., Davies A., Ware J. (1994). Patient Satisfaction Questionnaire (PSQ III). Versão para ser respondida por utentes. Adaptação de Ana Raquel Braga e Irene P. Carvalho (2017) das dimensões General Satisfaction, Technical Quality, Interpersonal Aspects, Communication; Time Spent with Doctor]

Quantos vezes esteve com o seu enfermeiro antes desta visita? \_\_\_\_\_

	5-10 minutos	10-15 minutos	15-20 minutos	Mais de 20 minutos
1. Quanto tempo sente que durou a sua consulta?	1	2	3	4

	0-2 anos	2-4 anos	4-6 anos	Mais de 6 anos
2. Há quanto tempo conhece o seu enfermeiro de família?	1	2	3	4

Por favor, verifique: respondeu a todas as perguntas?

Muito obrigada.

Hays R., Davies A., Ware J. (1994). Patient Satisfaction Questionnaire (PSQ III). Versão para ser respondida por utentes. Adaptação de Ana Raquel Braga e Irene P. Carvalho (2017) das dimensões General Satisfaction, Technical Quality, Interpersonal Aspects, Communication; Time Spent with Doctor]

## **Appendix 2**

Patient consent form for investigation

## CONSENTIMENTO INFORMADO, LIVRE E ESCLARECIDO PARA PARTICIPAÇÃO EM INVESTIGAÇÃO

de acordo com a Declaração de Helsínquia<sup>1</sup> e a Convenção de Oviedo<sup>2</sup>

*[Por favor, leia com atenção a seguinte informação. Se achar que algo está incorrecto ou que não está claro, não hesite em solicitar mais informações. Se concorda com a proposta que lhe foi feita, queira assinar este documento.]*

**Título do estudo:** Relação enfermeiro de família/utente nos cuidados de saúde primários.

Esta investigação surge no âmbito de tese para o Mestrado de Comunicação Clínica para a Faculdade de Medicina do Porto a frequentar pela Enfermeira Ana Raquel Braga.

Este estudo prende-se com dois momentos em que lhe vai ser pedido para preencher o seguinte questionário. Os seus dados são confidenciais, servindo para o presente estudo sem em qualquer sítio ser colada a sua identificação. A sua participação voluntária podendo sair do estudo em qualquer momento sem qualquer prejuízo para si

Grata pela sua atenção, Ana Raquel Guimarães Rodrigues Braga.

Em caso de dúvida ou esclarecimento adicional pudera contactar-me presencialmente na Unidade de Saúde familiar Rainha D. Amélia – ACES Porto Ocidental ou através do E-mail [anabraga.ag.mcc@gmail.com](mailto:anabraga.ag.mcc@gmail.com)

**Assinatura/s:** .....

-O-O-O-O-O-O-O-O-O-O-O-O-O-O-O-O-

*Declaro ter lido e compreendido este documento, bem como as informações verbais que me foram fornecidas pela/s pessoa/s que acima assina/m. foi-me garantida a possibilidade de, em qualquer altura, recusar participar neste estudo sem qualquer tipo de consequências. Desta forma, aceito participar neste estudo e permito a utilização dos dados que de forma voluntária forneço, confiando em que apenas serão utilizados para esta investigação e nas garantias de confidencialidade e anonimato que me são dadas pelo/a investigador/a.*

<sup>1</sup> [http://portal.arsnorte.min-saude.pt/portal/page/portal/ARSNorte/Comiss%C3%A3o%20de%20C3%89tica/Ficheiros/Declaracao\\_Helsinki\\_2008.pdf](http://portal.arsnorte.min-saude.pt/portal/page/portal/ARSNorte/Comiss%C3%A3o%20de%20C3%89tica/Ficheiros/Declaracao_Helsinki_2008.pdf)

<sup>2</sup> <http://dre.pt/pdf1sdip/2001/01/002A00/00140036.pdf>



Nome: ... ..

Assinatura: ... ..

Data: ..... /..... /.....

SE NÃO FOR O PRÓPRIO A ASSINAR POR IDADE OU INCAPACIDADE

(se o menor tiver discernimento deve também assinar em cima, se consentir)

NOME: ... ..

BI/CD Nº: ..... DATA ou VALIDADE ..... /..... /.....

GRAU DE PARENTESCO OU TIPO DE REPRESENTAÇÃO: .....

ASSINATURA .....  
...

**ESTE DOCUMENTO É COMPOSTO DE 1PÁGINA E FEITO EM DUPLICADO:  
UMA VIA PARA O/A INVESTIGADOR/A, OUTRA PARA A PESSOA QUE CONSENTE**

<sup>1</sup> [http://portal.arsnorte.min-saude.pt/portal/page/portal/ARSNorte/Comiss%C3%A3o%20de%20C3%89tica/Ficheiros/Declaracao\\_Helsinki\\_2008.pdf](http://portal.arsnorte.min-saude.pt/portal/page/portal/ARSNorte/Comiss%C3%A3o%20de%20C3%89tica/Ficheiros/Declaracao_Helsinki_2008.pdf)

<sup>1</sup> <http://dre.pt/pdf1sdip/2001/01/002A00/00140036.pdf>

### **Appendix 3**

[Parecer 16-2018.pdf](#)

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